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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHIFERAW, ELENI A

ART UNIT PAPER NUMBER

2136

DATE MAILED: 05/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,518

Applicant(s)

ZELLER ET AL.

Examiner

Eleni A. Shiferaw

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/01/2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-17 are presented for examination.

Specification

2. Applicant is reminded of the proper format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Drawings

3. The drawings are objected to because the hand written numbers are not clear. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which

it is most nearly connected, to make and/or use the invention. The claimed limitation states the modules on the first lattice and the modules on the second lattice do not overlap but this is nowhere in the specifications. In the specifications paragraph 025, a plurality of black modules and white modules are described but not non-overlapping.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Rhoads (US Patent No.: 6,636,615).

As per claim 1, Rhoads teaches a method of producing a background image representing data comprising the steps of:

producing a first encoding of the data into a first binary array (Fig. 1 element 10; document; and/or fig. 2B);

producing a second encoding of the data into a second binary array (Fig. 1 element 10; watermark; and/or fig. 2A);

representing the first binary array as a first set of modules of a first size on nodes of a first lattice (Fig. 2B; size is 6 by 6);

representing the second binary array as a second set of modules of a second size, which is smaller than the first size on nodes of a second lattice (Fig. 2A; size is 3 by 3 which is less than 6 by 6);

combining the first and second sets of modules (col. 4 lines 20-21; fig. 2A and fig. 2B watermarks are inserted/combined on the document 10); and

printing the first and second sets of modules (col. 4 lines 12-14, col. 6 lines 64-col. 7 lines 14, and fig. 5B).

As per claim 2, Rhoads teaches the method, further including the step of:

superimposing graphic material on the modules before printing (col. 4 lines 57-61, and col. 4 lines 20-21).

As per claim 4, Rhoads teaches the method, wherein the modules on the first lattice and the modules on the second lattice do not overlap (fig. 3A, and fig. 3B, and col. 4 lines 56-col. 5 lines 10).

7. Claim 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads (US Patent No.: 6,636,615) further in view of Rhoads (Pub. No.: US 2001/0022848 A1).

As per claim 3, Rhoads (6,636,615) teaches all the subjected method as described above. Rhoads does not disclose the first image being postal indicia.

However Rhoads (2001/0022848 A1) discloses the method, wherein the graphic material is a postal indicia (page 1 par. 0008 lines 4-7).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Rhoads (2001/0022848 A1) within the system of Rhoads (6,636,615) because it would allow to discourage the counterfeiting of stamps (Rhoads (2001/0022848 A1) page 1 par. 0008 lines 8-10).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muratani (Patent No.: US 6,768,807 B1) in view of Roberts (Patent No.: US 6,882,442 B2).

As per claims 5 and 8, Muratani teaches a method for producing a composite image comprising the steps of:

producing a first image and a second image that embeds information in the first image (fig. 2 element f);

representing information contained in the second image by a two-dimensional bar code (col. 20 lines 36-39, col. 24 lines 8-10);

filtering the two-dimensional bar code with a spreading algorithm that scrambles the information represented by the two-dimensional bar code (col. 5 lines 28-47, and col. 20 lines 36-39);

applying a spreading algorithm to the first part and second part to further hide the information in the first and second parts (col. 5 lines 28-47, col. 20 lines 36-39, and col. 20 lines 4-9);

expanding the first and second parts over the entire image that is going to be printed (col. 5 lines 28-47, col. 20 lines 36-39, and col. 20 lines 4-9); and

printing the first and second parts over the first image to produce an image containing hidden information (col. 4 lines 57-61).

Muratani does fail to explicitly teach splitting the filter bar code into an equal first part and an equal second part, wherein each first part and each second part will contain an upper portion and a lower portion such that the lower portion of the first part and the upper portion of the second part will be white or empty space;

However Roberts teach splitting the filter bar code into an equal first part and an equal second part, wherein each first part and each second part will contain an upper portion and a lower portion such that the lower portion of the first part and the upper portion of the second part will be white or empty space (Fig. 11A, and col. 19 lines 6-30);

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Roberts within the system of Muratani because they are analogous in watermarking/barcode indicia. One in the art would have been motivated to incorporate the teachings of Roberts within the system of Muratani in order to

prevent unauthorized user from photocopying/printing coupon/postal indicia and present it for redemption (col. 15 lines 39-53).

As per claim 8, Muratani and Roberts teach all the subject matter as described above. In addition, Muratani teaches the method, wherein:

at each location in which information from the first parts is going to be printed, the printed information will be a printed pixel of a specified dimension (fig. 4A and col. 11 lines 40-47; pixel dimension is 2 by 2), and

at each location in which information from the plurality of second parts is going to be printed, the printed information will be a printed pixel of a specified dimension that differs from the pixels printed in the first parts (fig. 4B; pixel dimension is 4 by 4).

10. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muratani (Patent No.: US 6,768,807 B1), and Roberts (Patent No.: US 6,882,442 B2), and further in view of Rhoads (Pub. No.: US 2001/0022848 A1).

As per claim 6, Muratani and Roberts teach all the subjected method as described above. Muratani and Roberts do not disclose the first image being postal indicia.

However Rhoads (2001/0022848 A1) discloses the method, wherein the graphic material is a postal indicia (page 1 par. 0008 lines 4-7).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Rhoads (2001/0022848 A1) within the system

of Muratani and Roberts because it would allow to discourage the counterfeiting of stamps (Rhoads (2001/0022848 A1) page 1 par. 0008 lines 8-10).

As per claim 7, Muratani, Roberts and Rhoads teach all the subject matter as described above. In addition Rhoads teaches the method, wherein the first and second images are printed on a medium (page 6 par. 0099, page 10 par. 0157).

11. Claims 9-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muratani (Patent No.: US 6,768,807 B1), Roberts (Patent No.: US 6,882,442 B2), and Rhoads (Pub. No.: US 2001/0022848 A1), and further in view of Rhoads (US Patent No.: 6,636,615).

As per claim 9, Muratani, Roberts and Rhoads (6,882,442 B2) teach all the subjected matter as described. Muratani, Roberts, and Rhoads (2001/0022848 A1) do not explicitly teach the printed pixels of specified dimensions in the first and second parts will become larger when the first and second images are scanned.

However Rhoads (6,636,615) teaches the method, wherein when the first and second images are scanned and printed, the printed pixels of specified dimensions in the first and second parts will become larger (Abstract and fig. 5B).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the teachings of Rhoads (6,636,615) within the combination system of Muratani, Roberts and Rhoads (2001/0022848 A1) because it would identify the

original postal indicia.

As per claims 10 and 15, Muratani, Roberts, Rhoads (2001/0022848 A1), and Rhoads (6,636,615) teach all the subject matter as described above. In addition Rhoads (6,636,615) teaches the method, wherein the change in size of the printed pixels of specified dimensions in the first and second parts is detectable by the unaided human eye (col. 3 lines 29-54, and fig. 5B). The rationale for combining are the same as claim 9 above.

As per claims 11 and 16, Muratani, Roberts, Rhoads (2001/0022848 A1), and Rhoads (6,636,615) teach all the subject matter as described above. In addition Rhoads (6,636,615) teaches the method, wherein the change in size of the printed pixels of specified dimensions in the first and second parts is detectable by a scanner (col. 2 lines 55-67, and col. 6 lines 61-col. 7 lines 14). The rationale for combining are the same as claim 9 above.

As per claim 12, Muratani, Roberts, Rhoads (2001/0022848 A1), and Rhoads (6,636,615) teach all the subject matter as described above. In addition Rhoads (6,636,615) teaches the method, further including the steps of: photocopying the first and second images; and noticing a change in appearance of the second image (col. 6 lines 61-col. 7 lines 14, and fig. 5B). The rationale for combining are the same as claim 9 above.

As per claim 13, Muratani, Roberts, Rhoads (2001/0022848 A1), and Rhoads (6,636,615) teach all the subject matter as described above. In addition Rhoads (6,636,615) teaches the method,

further including the steps of: scanning the first and second images; and noticing a change in appearance of the second image (col. 6 lines 61-col. 7 lines 14, and fig. 5B). The rational for combining are the same as claim 9 above.

As per claim 14, Muratani, Roberts, Rhoads (2001/0022848 A1), and Rhoads (6,636,615) teach all the subject matter as described above. In addition Rhoads (6,636,615) teaches the method, wherein when the first and second images are photocopied, the printed pixels of specified dimensions in the first and second parts will become larger (col. 2 lines 61-64, col. 6 lines 61-col. 7 lines 14, and fig. 5B). The rational for combining are the same as claim 9 above.

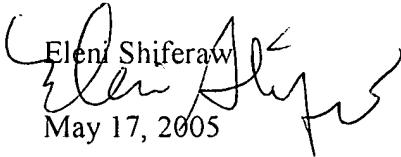
As per claim 17, Muratani, Roberts, Rhoads (2001/0022848 A1), and Rhoads (6,636,615) teach all the subject matter as described above. In addition Rhoads (6,636,615) teaches the method, wherein the first image will not change in appearance when the first image is scanned or photocopied (fig. 5A, col. 2 lines 61-64, col. 6 lines 61-col. 7 lines 14, and fig. 5B). The rational for combining are the same as claim 9 above.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A. Shiferaw whose telephone number is 571-272-3867. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2136

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eleni Shiferaw

May 17, 2005


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